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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,648	10/30/2003	Wassim Haddad	1509-468	7791

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EXAMINER
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JAIN, RAJ K

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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10/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/696,648

Applicant(s)

HADDAD ET AL.

Examiner

Raj K. Jain

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-14 is/are rejected.
- 7) ☐ Claim(s) 18-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

Claim 1 is similar to claim 10, cancellation of one of the subject claims is required.

Reword Claims 4 and 11 as follows, here in part;

4. (currently amended) .....

the first and second wireless technologies being different wireless technologies, operating at non overlapping first and second frequency bandwidths, wherein each of the wireless technologies is one of 802.11x, Hiperlan/2, Bluetooth or Home RF, respectively, .....

11. (currently amended) .....

the first and second wireless technologies being different wireless technologies, operating at non- overlapping first and second frequency bandwidths, wherein each of the wireless technologies is one of 802.11x, Hiperlan/2, Bluetooth or Home RF, respectively, the first wireless technology operating at a faster data rate than the second wireless technology; and .....

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida et al (USP 6,526,036 A1) in view of Shay (US 2003/0120826 A1).

Regarding claims 1, 4, 10-12, Uchida discloses a wireless system (Fig. 1) comprising: an access point (base stations BSx), at least one communications device (mobile stations MSx) communicating within said wireless system via said access point, and a controller (mobile switching center MSC01, MSC02 and/or base stations having the controller as appropriate), the access point including a data communicator for communicating data with said at least one communications device over downlink and uplink channels using different first and second wireless technologies (TDMA and CDMA are coexistent technologies col 9 lines 37-57), respectively,

said at least one communications device including a further data communicator for communicating data with said access point over said downlink and uplink channels using said first and second wireless technologies (again, TDMA and CDMA are coexistent technologies used both in uplink and downlink channels col 9 lines 37-57) respectively,

wherein the first wireless technology arranged to be used for the downlink channel is arranged to operate at a first frequency bandwidth and at a first data rate, the second wireless technology arranged to be used for the uplink channel is arranged to operate at a second frequency bandwidth non-overlapping with the first frequency bandwidth, and at a second data rate lower than the first data rate (col 10 lines 24-37;

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lines 51-53; col 10 line 63 - col 11 line 5; col 11 lines 22 – 37 asymmetric frequency channels communicating at different data rates), and

the controller is arranged for controlling data communications over the downlink channel and the uplink channel to maximize the usage of the bandwidth of the downlink channel data communication (col 11 lines 1-22, maximum bandwidth is allocated for downlink or uplink as appropriate for maximizing bandwidth usage).

Uchida fails to disclose WLAN systems including 802.11, HIPERLAN/2, Bluetooth or Home RF.

Shay discloses WLAN systems including 802.11, HIPERLAN/2, Bluetooth or Home RF ( paras 12, 28). WLAN networks in cooperation with WAN systems and other networks provide an enhanced communications platform without the need for additional external infrastructure such as towers and central switches. Thus it would have been obvious at the time the invention was made to incorporate the teachings of Shay within Uchida so as to provide an enhanced communications platform.

Furthermore with respect to claims 3, 5-7, 11 and 12, Uchida discloses service request from mobile to base station for increased data rate on the downlink (col 6 lines 27-38).

Regarding claim 8, Uchida discloses controlling data communications so that any spare capacity on the uplink channel is used for downloading data from the access point to the given mobile communications device (col 3 lines 44 – 54, co 14 lines 26-33).

Regarding claims 9 and 16, Uchida discloses controlling data communications so that each of the wireless technologies is used for both uploading and downloading data to and from the access point (Fig.1, Claim 1).

Regarding claims 13 and 14, Uchida discloses wherein data is communicated between the access point and the given mobile communications device simultaneously on both said downlink and uplink channels (col 12 lines 30 – 40).

Regarding claim 15, Uchida discloses data is downloaded from the access point to the given mobile communications device simultaneously on both said downlink and uplink channels, using an entire capacity of said downlink channel and the spare capacity of the uplink channel (col 12 lines 30-40); a remaining capacity of the uplink channel being simultaneously used for uploading data from the given mobile communications device to the access point (col 3 lines 39 – 54).

Regarding claim 17, Uchida inherently discloses a controller within its base stations (access point), as each base station BSx (Fig. 1) must control the transmission and/or reception of data from various mobile transceivers (col 4 lines 1-7; col 12 lines 26 – 34).

### ***Allowable Subject Matter***

Claims 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj K. Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

***Raj K. Jain***

***/Raj K. Jain/*** 

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October 9, 2007